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Serial No. 10/770,928
60,130-2033 (01MRA0197)

REMARKS

The Applicant wishes to thank the Examiner for the detailed remarks. Applicant has amended the claims, and new claims 19-27 have been added. Claims 10-27 are pending.

The Examiner rejected claims 10 and 15 under 35 U.S.C. §102(b) as being anticipated by *Pinch, et al.* The Examiner contends that the protrusion 70 that is fusion-bonded to an outer surface of an axle 62 is a first interlocking feature on the exterior surface of the axle tube recited in Applicant's claims. Applicant's amended claims recite a hydroformed first interlocking feature. A hydroformed feature (such as a hydroformed protrusion) is a feature that is formed, for example, by pressurized hydraulic fluid. The protrusion of *Pinch* that is fusion-bonded to an outer surface of an axle tube is not a hydroformed first interlocking feature as recited in Applicant's claims. Accordingly, claims 10 and 15 are properly allowable.

The Examiner rejected claims 10, 11, and 17 under 35 U.S.C. §102(b) as being anticipated by *Palovcik*. The Examiner contends that *Palovcik* discloses that an outer surface of a tube and an inner surface of a sleeve form first and second interlocking features in as much as they tightly contact each other when assembled. Applicant's amended claims recite a hydroformed first interlocking feature. *Palovcik* discloses a collar 52 that is welded to a spindle 40 to secure them together. Neither the collar 52 nor the spindle 40 includes interlocking features that are hydroformed as recited in Applicant's claims. Accordingly, claims 10, 11, and 17 are properly allowable.

Additionally, the Applicant's claims recite first and second interlocking features. For example, the inventive interlocking features can include complimentary splines or a protrusion and hole arrangement that have a distinct shape to lock the tubular member and the axle component together. *Palovcik* does not disclose any distinct features that secure the bearing shoulder sleeve and the axle tube together. Accordingly, claims 10, 11, and 17 are properly allowable.

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The Examiner rejected claims 10, 11, 12, 14, 16, 17, and 18 under 35 U.S.C. §103(a) as being anticipated by *Dougherty, et al.* in view of *Spindler*. The Examiner contends that *Dougherty, et al.* discloses an axle 12 having a flange 14 mounted thereto. The Examiner admits that *Dougherty, et al.* does not disclose the axle as a tubular member. The Examiner contends that *Spindler* teaches that the axle may be solid or tubular.

Applicant respectfully disagrees with the modification of *Dougherty, et al.* with *Spindler*. *Dougherty, et al.* discloses forging a flange section and a shaft section together into a single axle component. See column 1, lines 19-47. *Spindler* discloses welding an axle member 10 to a hollow or tubular spindle 14, and welding a flange 12 to the spindle 14 to provide easily inspectable weld joints. See column 3, lines 65-68. Neither *Dougherty, et al.* nor *Spindler* suggest or teach a tubular member in combination with the forging disclosed in *Dougherty, et al.* For example, how would one support the interior cavity of the tubular member during the forging deformation process described in *Dougherty, et al.*? Thus, there is no motivation or suggestion to modify the forged connection of *Dougherty, et al.* with the welding of a tubular spindle of *Spindler*. Accordingly, claims 10, 11, 12, 14, 16, 17, and 18 are properly allowable.

The Examiner rejected claim 13 under 35 U.S.C. §103(a) as being unpatentable over *Dougherty, et al.* in view of *Spindler* and further in view of *Swars*. In addition to the reasons stated above against the proposed modification of *Dougherty, et al.* with *Spindler*, there is no motivation and no benefit to modifying *Spindler* with *Swars*. *Spindler* teaches welding an axle member 10 to a hollow or tubular spindle 14, and welding a flange 12 to the spindle 14 to provide easily inspectable weld joints. See column 2, lines 3-7. *Swars* teaches utilizing a metal layer 4 in combination with plastic deformation to increase directly contacting surface area between a hollow shaft and a design element and thereby improve adhesion. See column 1, lines 50-59; column 3, lines 3-6. The problem of *Spindler* is inspection of welded joints, not contacting surface area as addressed by *Swars*. Thus, there is no benefit in modifying the welded

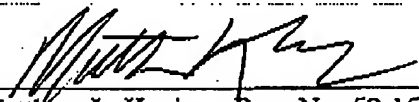
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joints of *Spindler* with the metal layer of *Swars* as proposed. Furthermore, a metal layer between two components would not be easily inspected, which would defeat the objective of *Spindler* to provide joints that are easily inspected. Therefore, the modification of *Spindler* with *Swars* is improper. Accordingly, claim 13 is properly allowable.

Applicant has added new claims 19-27 that are not found or suggested in the prior art. No new matter has been added.

Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds for any additional fees or credit the account for any overpayment.

Respectfully submitted,


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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States patent and Trademark Office, fax number (571) 273-8300, on September 19, 2005.


Laura Combs